University of Reading

Who's afraid of phrasal verbs? The use of phrasal verbs in expert academic writing in the discipline of linguistics

Article

Published Version

Creative Commons: Attribution 4.0 (CC-BY)

Open access

Alangari, M., Jaworska, S. and Laws, J. (2020) Who's afraid of phrasal verbs? The use of phrasal verbs in expert academic writing in the discipline of linguistics. Journal of English for Academic Purposes, 43. 100814. ISSN 1475-1585 doi: https://doi.org/10.1016/j.jeap.2019.100814 Available at https://centaur.reading.ac.uk/87172/

It is advisable to refer to the publisher's version if you intend to cite from the work. See Guidance on citing.

To link to this article DOI: http://dx.doi.org/10.1016/j.jeap.2019.100814

Publisher: Elsevier

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the End User Agreement.

www.reading.ac.uk/centaur

CentAUR

University of Reading

Central Archive at the University of Reading

Reading's research outputs online

Journal of English for Academic Purposes 43 (2020) 100814

Contents lists available at ScienceDirect

Journal of English for Academic Purposes

journal homepage: www.elsevier.com/locate/jeap

Who's afraid of phrasal verbs? The use of phrasal verbs in expert academic writing in the discipline of linguistics

Manal Alangari [a], Sylvia Jaworska [b, *], Jacqueline Laws [b]

[a] Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia
[b] Dept of English Language and Applied Linguistics, Edith Morley Building, University of Reading, Whiteknights Campus, Reading, RG6 6UR, UK

ARTICLE INFO

Article history:
Received 7 March 2019
Received in revised form 17 October 2019
Accepted 3 November 2019
Available online 6 November 2019

Keywords:
Phrasal verbs
Expert academic writers
Linguistics
Corpus linguistics
Clause structure
Frame semantics

ABSTRACT

This study investigates the hitherto understudied area of the use of phrasal verbs (PVs) in expert academic writing in the discipline of Linguistics. It uses a novel methodology combining the notion of grammatical collocation with the Quirkian approach to clause structure analysis and insights from Frame Semantics to identify the extent to which PVs are used in academic writing in comparison with other verb categories. Using a specifically designed corpus of L1 English academic expert writing in Linguistics, we investigate the frequency (types, and tokens) and meanings of PVs in this sample. Contrary to previous findings, our results indicate that PVs form a large proportion of verbs identified in expert writing. An analysis of meanings of the most frequent phrasal verbs in the corpus indicates that in academic writing PVs are used in restricted and sometimes metaphorical senses which are less common in general language use. We conclude our study by suggesting some recommendations for introducing phrasal verbs into the teaching repertoire of English for Academic Purposes.
© 2019 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1. Introduction

Phrasal verbs (PVs) have long had the reputation of *enfant terrible* in the family of academic genres. While they are totally acceptable in informal conversations, they are believed to have no place in formal academic writing. Instances of PVs in formal registers are often seen as stylistic inappropriateness, for which students' work is marked down. Thus, when it comes to formal writing, students across the world are explicitly instructed to replace PVs with one word, mostly Latinate, equivalents (e.g. Bailey, 2003; Coxhead & Byrd, 2007; Swales & Feak, 2004).

There is no doubt that PVs are a pervasive feature of informal conversations, but this does not mean that they are absent from other more formal genres and registers. Most studies that have investigated the distribution of PVs studied them as isolated items across different registers (e.g. Biber, Johansson, Leech, Conrad, & Finegan, 1999) and did not compare their usage with the use of other verbs within the same genre or register. Knowing the frequency with which PVs are used as compared to other verb categories might lead to insights that redefine the claims of their importance in a genre or register. Also, there have been issues with the ways in which PVs have been defined and operationalised in research with some researchers grouping them under more general terms like multi-word verbs or verb-particle constructions (e.g. Breeze, 2012;

* Corresponding author.
E-mail addresses: M.A.M.Alangari@pgr.reading.ac.uk (M. Alangari), s.jaworska@reading.ac.uk (S. Jaworska), j.v.laws@reading.ac.uk (J. Laws).

https://doi.org/10.1016/j.jeap.2019.100814
1475-1585/© 2019 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Liu, 2012; Siyanova & Schmitt, 2007). Due to their specific purposes, these studies did not differentiate PVs from other verb structures.

This study offers the first systematic and comprehensive insights into the use of PVs in current academic writing in the discipline of Linguistics, focusing on PV frequencies (types and tokens) and meanings. Using an extended syntactic framework based on the Quirkian clause structures, PVs are clearly delimited from other verb categories by considering relevant semantic and syntactic criteria. Unlike studies that focus only on two-word PVs (e.g. Garnier & Schmitt, 2015; Liu & Myers, 2018), we consider the whole clause structure and investigate PVs as part of longer verb-particle combinations, that are identified as phrasal prepositional verb clause structures. We study frequencies of PVs and compare them to the frequencies of other verb categories in the corpus. This allows us to identify the proportion of PVs in expert academic writing and highlight the relevance of this verb category in this genre. To shed light on the meanings of identified PVs, this study draws on insights from Frame Semantics which facilitates the understanding of the semantic frames that PVs activate and the semantic roles involved in clause structures 'preferred' by PVs. For reasons of generic homogeneity, academic writing in the discipline of Linguistics has been chosen as the source of data.

2. Phrasal verbs: definitions and past research

Phrasal verbs are defined as any two-part verbs consisting of a lexical verb followed (continuously or discontinuously) by an adverbial particle, which "behaves to some extent either lexically or syntactically as a single verb" (Quirk, Greenbaum, & Leech, 1985, p. 1150). Following Quirk et al. (1985: 1163–1168) and Biber et al. (1999: 404–428), there are a number of semantic and syntactic criteria that can be used to distinguish PVs from other categories of multi-word verbs and free-combinations including: idiomaticity, replacement by a single-word verb, *wh*-question formation and particle movement (Biber et al., 1999; Greenbaum & Nelson, 2002; Quirk et al., 1985). In this study, intransitive phrasal verbs, labelled as Phrasal Type 1, are delimited from free combinations based on idiomaticity, whereas the criterion of particle movement is used to distinguish transitive phrasal verbs, labelled as Phrasal Type 2, from prepositional verbs.

In addition to intransitive and transitive PVs (Phrasal Verbs Type 1 and Type 2), this study includes PVs that are followed by a preposition to form Phrasal Prepositional Verbs Type 1, such as *get back to it,* Phrasal Prepositional Type 2, such as *put it down to chance*, and Phrasal Prepositional Type 3, such as *let you in on a secret.* These types too belong to the category of phrasal verbs but have thus far been rarely investigated in research because their identification requires 'going beyond' one simple syntactic criterion and necessitates consideration of the whole clause. Most research to date has investigated forms of PVs as two-word combinations of a lexical verb with an adverbial particle with up to two interviewing words.

In this vein, Gardner and Davies (2007) interrogate the whole British National Corpus (BNC) and report a high occurrence of PVs in general English, i.e., across spoken and written texts. They identified 100 PVs that account for more than one half of all PVs in the BNC. Liu (2011) re-examines the use of the 100 most frequent PVs identified by Gardner and Davies (2007), with an addition of 50 more PVs, in British and American English. The author concludes that the most frequent PVs are used similarly in both varieties of English and mostly occur in fiction and conversation. In a more recent study, Garnier and Schmitt (2015) develop a list of English PVs – the PHaVE list, which stands for the Phrasal Verb List – based on the 150 most frequent PVs identified in Liu (2011) including their key senses. The researchers found that on average only two senses are enough to cover three-quarters of the occurrences and meanings of each phrasal verb.

Research on the use of PVs by expert academic writers is limited probably due to the fact that PVs are seen as a common feature of colloquial language and are generally not expected in academic writing. One of the very few studies in the area is Hundt and Mair's (1999) investigation into the use of phrasal and phrasal prepositional verbs in press and academic prose in two corpora of British and American English from the early 1960s to the 1990s. The authors' motivation was to establish whether there is a tendency for colloquialisation in both registers and PVs were considered to be one of the indicators of this tendency. The scope of PVs studied is however limited, as only PVs with the particle *up* were considered. The results show that within the span of 30 years, the number of types and tokens of PVs with *up* increased in the press, while in academic writing their use decreased. The authors conclude that academic writing, unlike the press, is less open to linguistic innovation and is more likely to remain "old-fashioned" (ibid: 236) in style, though the conclusion is based on only one type of PV and should therefore be treated with caution. While academic writing is certainly quite restrictive and 'conservative', it does not remain constant and is too subject to changes as new academic practices develop (cf. Biber, Egbert, Gray, Oppliger, & Szmrecsanyi, 2016). If we want to understand how academic writing evolves and what role PVs assume in this register, we need to consider examples of recent writing and the whole range of PVs in comparison to other verb categories.

Although interest in academic uses of PVs has been sparse, recently there have been two studies that considered PVs amongst other verb categories in academic writing. Liu (2012) explores the use of multi-word constructions (MWC) in the academic writing sub-corpora of the COCA and BNC. Based on the investigation, the study produced a list of the 228 most common MWCs in general academic written English, organized by frequency and semantic function. However, as this investigation considered MWCS, PVs were combined with other types of multi-word constructions including lexical bundles, idioms and prepositional verbs. This study is based on a large amount of data, which gives it stronger claims to validity, yet, the BNC data was obtained from 1980 to 1993 and the COCA data from 1990 to 2010. Thus, examples of more recent practices of academic literacy were not considered.

Liu and Myers (2018) examine the meaning distributions of the 150 most common PVs identified previously by Liu (2011) and investigated by Garnier and Schmitt (2015). Two registers are considered: spoken English and academic writing using the

spoken and the academic written sub-corpora of the COCA. The study results in the S&AW PHaVE list, where 'S&AW' stands for spoken and academic writing and the term 'PHaVE List' is adopted from the name of Garnier and Schmitt's (2015) list. The S&AW PHaVE list includes the main senses of the 150 PVs in the two registers. The comparison of the meanings of the PVs reveals a significant cross-register difference in 106 of the 150 most common PVs which represents an overwhelming majority of more than 96% of the data. The study of Liu and Myers emphasises the register-specific meanings of PVs. However, the 150 PVs investigated are only two-word PVs, and phrasal prepositional types of PVs were not considered in their study.

The use of PVs has also been explored in formal genres other than academic. For example, Trebits (2009) investigates PVs in a corpus of English documents of the European Union (EU). The study reports that written EU-English seems to resemble academic writing, since fewer PVs are used with fewer senses as compared to general English, which further confirms the infrequency of PVs in formal writing.

Because of their high prevalence and productivity, PVs are considered "one of the most notoriously challenging aspects of the English language" (Gardner & Davies, 2007, p. 339). Research concerned with the use of PVs by learners shows that PVs are error-prone, specifically if they are not available in the learners' mother tongue (Paquot & Granger, 2012, p. 133) or are avoided (Dagut & Laufer, 1985). The literature highlights different factors that can influence learners' knowledge and use of PVs including proficiency level and phrasal verb type (Liao & Fukuya, 2004) as well as the frequency of the phrasal verb (Schmitt & Redwood, 2011) and the extent of exposure to English (Aldukhayel, 2014).

Previous research emphasises the prominence and productivity of PVs in English identifying PVs as one of the most difficult aspects of English language teaching. Yet, almost all studies are concerned with general English and we still know little about the use of phrasal verbs in more formal registers such as academic writing, the exception being work by Liu and Myers (2018). Norms of academic literacy are not set in stone and the general trend of colloquialisation identified in writing (Leech, Hundt, Mair, & Smith, 2009) might have had an impact on the use of PVs in academic writing too. Additionally, there is virtually no research that establishes the distribution of PVs as compared to the use of single verb categories in a given register or genre. Hence, it is difficult to estimate what proportion of verb usage PVs represent across genres and registers.

To the best of our knowledge, this study is the first to offer a more comprehensive and systematic overview of the use of PVs including types of phrasal prepositional verbs in current English academic writing produced by expert writers in the field of Linguistics. It does so by addressing the following research questions:

1. What proportion do PVs take up in expert academic writing as compared to other verb categories used in the corpus under investigation?
2. What are the most frequent types and tokens of PVs?
3. What kind of senses do the most frequent PVs used in the corpus have, and how do they differ from their senses in general English?

3. Methodology

3.1. Analytical framework

This study adopts a novel approach to the identification and analysis of PVs which combines three frameworks: 1) the corpus linguistic notion of grammatical collocations, 2) the Quirkian approach to clause structures (Quirk et al., 1985), and 3) Frame Semantics (Fillmore, 1982). From a corpus-linguistic perspective, PVs are nothing more than a form of grammatical collocation where an open class word (verb in this case) is followed by a closed class word (particle). Yet, the traditional approach to the retrieval of collocations used in previous research (e.g. Nesselhauf, 2003) is limited when it comes to identifying phrasal verbs because it cannot account for the variation that takes place within the clause structure and the relationship between syntactic structures and verb categories. Automatic syntactic annotations of corpora are still in their infancy and produce results with high error rates (Gries & Berez, 2017). Thus, researchers interested in exploring lexico-grammatical phenomena at the interface with syntax have to rely on manual annotations.

This study adopts the Quirkian approach to clause structures for the syntactic analysis of the use of verbs and their related postverbal arguments. The clause structures selected for this study are derived from Quirk et al. (1985) (see Table 1). The target clause structures include the intransitive, copular, transitive, ditransitive and complex copular. The analysis includes both single and multi-word verbs used in these clause structures. Multi-word verbs are analysed under separate clause structures, including phrasal, prepositional, and phrasal propositional variants. This special attention is justified by the interest in delimiting the different categories of multi-word verbs as categories of grammatical verb collocations and to reveal the use of PVs as compared with other verb categories. The study explores 17 target clause structures. This allows us to gauge more accurately the proportion which PVs take up in current academic writing. As PVs are the focus of this paper, the five clause structures of PVs are placed at the top of the table (see Table 1).

To shed light on the senses and functions of identified PVs, Frame Semantics (Fillmore, 1982) is used for the analysis of the semantic roles of the elements involved in the clause structures (Fillmore & Baker, 2010). The analysis also aims to investigate the use of verbs in academic writing as compared to general use. General language use is reported in the PHaVE list which is based on the BNC and the COCA (Garnier & Schmitt, 2015). Therefore, in the current study, the senses mentioned in that list

Table 1
Target clause structures (adapted from Quirk et al., 1985, p. 1171).

	Verb Complementation Clause Structures	Examples
1	**Phrasal Type 1** SV (_VP AdvPart)	*The two girls have fallen out.*
2	**Phrasal Type 2** SVOd (_VP AdvPart NP)	*Sam picked up the pen.* *Sam picked the pen up.*
3	**Phrasal Prepositional Type 1** SVOp (_VP AdvPart PP)	*I look forward to your party.*
4	**Phrasal Prepositional Type 2** SVOdOp (_VP NP AdvPart PP)	*They put it down to chance.*
5	**Phrasal Prepositional Type 3** SVOiOp (_VP NP AdvPart PP)	*They let me in on the deal.*
6	**Intransitive** SV (_VP)	*John has arrived.*
7	**Copular** SVC (_VP NP/ADJ) subject complement SVC	
	1 Adjectival	1 *The girl seemed restless.*
	2 Nominal	2 *She is a teacher.*
8	**Transitive** SVO (_VP NP)	
	1 noun phrase (with or without passive)	1 *Tom caught the ball/Paul lacks confidence.*
	2 finite clause: that-clause/*wh*-clause	2 *I think that we have met.*
	3 nonfinite clause: *wh*-infinitive, *to*-infinitive, *-ing* clause	3 *I learned how to sail/She decided to move house/She enjoys playing squash.*
	4 *to*-infinitive (+*s*), *-ing* clause (+*s*)	4 *They want us to help/I hate children quarrelling.*
9	**Prepositional Type 1** SVOp (_VP PP)	*John looked at his watch.*
10	**Complex copular** SVOC (_VP NP NP/ADJ)	
	1 O+ adjectival	1 *That music drives me mad.*
	2 O+ nominal	2 *They named the ship 'Zeus'.*
	3 O+ *to*-infinitive/*as*	3 *They knew him to be a spy/He is known as a spy.*
	4 O + bare infinitive	4 *I saw her leave the room.*
	5 O + *-ing* clause	5 *I heard someone shouting.*
	6 O + *-ed* clause	6 *I got the watch repaired.*
11	**Complex transitive** SVOA (_VP NP PP)	*I left the key at home.*
12	**Ditransitive**	
	Double object (dative, benefactive and depriving clause structures) SVOiOd (_VP NP NP)	
	1 2 noun phrases: Oi and Od	1 *They offered her some food.*
	2 Od + prepositional phrase	2 *They said something to us.*
	3 Oi + *that*-clause	3 *They told me that I was ill.*
	4 Oi + *wh*-clause	4 *He asked me what time it was.*
	5 Oi + *wh*-infinitive clause	5 *Mary showed us what to do.*
	6 Oi + *to*-infinitive	6 *I advised Mark to see a doctor.*
13	**Prepositional Type 2a** (alternating with SVOiOd) SVOdOp (_VP NP PP)	*He lent his bike to Sam.* *(He lent Sam his bike.)*
14	**Prepositional Type 2b** (non-alternating) SVOdOp (_VP NP PP)	*He donated £10 to charity.*
15	**Prepositional Type 3** SVOdOp (_VP NP PP)	*I caught sight of him.*
16	**Prepositional Type 4a** (animate indirect object) SVOiOp (_VP NP PP)	*They told me about your success.*
17	**Prepositional Type 4b** (inanimate indirect object) SVOiOp (_VP NP PP)	*They based the findings on facts.*

for each phrasal verbal are compared to the senses reflected in the concordance lines under investigation. Since the PHaVE list does not include phrasal prepositional verbs, dictionaries, such as the Cambridge Dictionary (http://www.cambridge.org), the Oxford English Dictionary (http://www.oed.com), and the Merriam-Webster (https://www..com Merriam-Webster) are used as references to check meanings associated with these types of phrasal verbs in general English.

3.2. Data sources

Published research articles are commonly recognised as the model of academic writing. Thus, a decision was made to investigate articles published in prominent academic journals. To represent academic writing comprehensively, ideally homogenous samples from different disciplines should be collected. However, this task was not possible within the scope of this study. Therefore, recently published research articles from the discipline of Linguistics were chosen to represent a homogeneous sample of current academic writing. The choice of the discipline was also guided by the fact that Linguistics is the discipline in which the authors of this study work as teachers and researchers. The motivation was to make contributions to teaching and research at 'home' first before exploring other academic disciplines. The main intention is to describe what types of PVs are used in different clause structures in the writing of experts in Linguistics and what meanings they assume. The results provide a model of lexico-grammatical possibilities that can be of use for novice writers in the discipline and act as benchmark data to compare the use of PVs in other academic disciplines.

The University of X's Library subscription was used to access Linguistics journals. To make the corpus as representative of the chosen discipline as possible, the sample included journals that focused on a variety of linguistics subject areas including language teaching, sociolinguistics, discourse studies as well as theoretical linguistics. Given the availability, nine English journals were selected (see Table 2). From each journal, 10–15 articles published from 2014 to 2016 were chosen; care was taken to include articles with both quantitative and qualitative methodologies. The selected articles were transferred from

Table 2
The academic English corpus (AEC).

	Journal	Number of Articles	Date Range	Number of Words
1	Applied Linguistics (Oxford University Press)	14	2013–2016	107,040
2	Studies in Language (John Benjamins Publishing Company)	12	2014–2016	100,958
3	Journal of Linguistics (Cambridge University Press)	14	2012–2016	122,391
4	TESOL Quarterly (Wiley-Blackwell on behalf of TESOL International Association)	15	2015–2016	103,050
5	Discourse & Society (Sage Publications)	15	2014–2016	104,523
6	Journal of Sociolinguistics (Wiley-Blackwell)	15	2014–2016	107,860
7	Language in Society (Cambridge University Press)	15	2014–2016	109,783
8	English Language & Linguistics (Cambridge University Press)	15	2014–2016	124,858
9	Discourse & communication (Sage Publications)	15	2014–2016	106,924
	Total	130		987,387

their PDF format to a.txt file. Each article's title, author(s) name and affiliation, reference list, tables and graphs were removed. The.txt files were then uploaded onto Sketch Engine and formed the Academic English Corpus (AEC). The total size of the corpus is 987,387 words.

3.3. Analytical procedures

Sketch Engine (Kilgarriff et al., 2014) was chosen for the analysis in this study. This corpus analysis tool was found most suitable for the purpose of this study because unlike other available corpus linguistics software programmes it performs an automatic tagging of the corpora.

Firstly, the most frequent 100 verbs were identified using the Word list function and then the attribute 'lempo'. This attribute is a combination of lemma and part of speech. The output provides a list of the lemma forms together with their part of speech. At the filter option, the regular expression *-v was used to limit the search to the word class of verbs. This resulted in a list of verbs lemmatised and ranked in order of frequency. The top 100 verbs were included in the study. Modal verbs were excluded because they are not lexical verbs and do not form PVs.

In the next step, the concordance lines of each of the selected 100 verbs were analysed to identify the clause structures in which the verbs were most commonly used. For verbs whose frequency was over 1000 in the AEC, a sample of 1000 concordance lines was examined. To make the sample as representative as possible, care was taken to include examples from all journals. The total token frequency of all the verbs in the AEC is 144,371 and the sum of the top 100 verbs is 94,832, which means that the study sample represents 66% of total verb frequency in the AEC.

As the focus of this paper is on PVs, the identification of PVs in the sample was further established by a measure of their dispersion across the different journals included in the AEC using Gries' (2008) DP measure. This measure provides a value that ranges from 0 to 1. A DP value of near to 0 suggests that the linguistic item under study is distributed in proportion to the size of the corpus components, whereas a value near 1 suggest unequal distribution. Some factors, such as the number of sub-corpora, may result in a maximal value of the DP measure greater than 1; therefore Gries recommends the computation of the normalised value known as DP_{norm}, which represents the maximal DP value for any cross-corpus comparison (Gries, 2008; Lijffijt & Gries, 2012). Following the convention adopted by Liu (2011), DP_{norm} values were used in the current study.

4. Results and discussion

4.1. Phrasal verbs in the AEC

Before the analysis zooms in to discuss the use of PVs in expert academic writing, we present an overview of the clause structures and categories of verbs identified in the AEC corpus. The distribution of the 100 most frequent verbs in the AEC over the clause structures, presented in Table 3, reveals several syntactic and verbal features of current academic writing in the discipline of Linguistics. The values under the % column in Table 3 represent the percentages as of total verb/clause structures identified.

Out of the 100 most frequently used verbs, English writers use 86 in the transitive clause structure. This shows rather unsurprisingly that the most frequently used category of clause structures in the current sample of expert academic writing in Linguistics is the transitive one. The second largest group is formed of Prepositional Type 1 verbs (75 types) suggesting that this clause structure is the second most frequently used by expert writers in our discipline. In the complex copular clause structure, English writers use 3080 tokens, thus indicating the importance of this clause structure in English academic writing in Linguistics. A large number of verbs (45 types) are used in this clause structure including *make, consider, call, define* and *find*.

More importantly and rather surprisingly, the distribution of the most frequent verbs in the AEC highlights the relevance of PVs in current expert academic writing in Linguistics. Contrary to previous claims that PVs are rare in academic writing (e.g. Biber et al., 1999; Liu, 2011), the analysis above shows that 49 types of verbs are used in Phrasal Type 1, 41 in Phrasal Type 2, 25 in Phrasal Prepositional Type 1, and 11 in Phrasal Prepositional Types 2 and 3. These form a total of 126 types of phrasal and phrasal prepositional verbs which account for 27% of the total verb types identified in the 100 most frequent verbs in the AEC.

Table 3
Selected clause structures and their frequencies in the AEC.

	Verb Complementation Clause Structure	General Examples	Types		Tokens	
			Freq	%	Freq	%
1	**Phrasal Type 1** SV (_VP AdvPart)	*The two girls have fallen out.*	49	10.36	321	0.78
2	**Phrasal Type 2** SVOd (_VP AdvPart NP)	*Sam picked up the pen.* *Sam picked the pen up.*	41	8.67	252	0.61
3	**Phrasal Prepositional Type 1** SVOp (_VP AdvPart PP)	*I look forward to your party.*	25	5.29	78	0.19
4	**Phrasal Prepositional Type 2** SVOdOp (_VP NP AdvPart PP)	*They put it down to chance.*	6	1.27	23	0.06
5	**Phrasal Prepositional Type 3** SVOiOp (_VP NP AdvPart PP)	*They let me in on the deal.*	5	1.06	10	0.02
6	**Intransitive** SV (_VP)	*John has arrived.*	32	6.77	1717	4.16
7	**Copular/Linking** SVC (_VP NP/ADJ)	*She is a teacher.* *The girl seemed restless.*	11	2.33	2415	5.86
8	**Simple Transitive** SVOd (_VP NP)	*Tom caught the ball.*	86	18.18	26,998	65.48
9	**Prepositional Type 1** SVOp (_VP PP)	*John looked at his watch.*	75	15.86	3476	8.43
10	**Complex Copular** SVOC (_VP NP NP/ADJ)	*He considered his uncle a genius/He found the book relevant.*	45	9.51	3080	7.47
11	**Complex Transitive** SVOA (_VP NP PP)	*She put her coat in the hall.*	4	0.85	138	0.33
12	**Ditransitive/Double object** (dative, benefactive and depriving clause structures) SVOiOd (_VP NP NP)	*He lent Sam his bike.*	9	1.90	299	0.73
13	**Prepositional Type 2a** (alternating) SVOdOp (_VP NP PP)	*He lent his bike to Sam.*	6	1.27	116	0.28
14	**Prepositional Type 2b** (non alternating) SVOdOp (_VP NP PP)	*He donated £10 to charity.*	23	4.86	177	0.43
15	**Prepositional Type 3** SVOdOp (_VP NP PP)	*I caught sight of him.*	29	6.13	517	1.25
16	**Prepositional Type 4a** (animate indirect object) SVOiOp (_VP NP PP)	*They told me about your success.*	8	1.69	124	0.30
17	**Prepositional Type 4b** (inanimate indirect object) SVOiOp (_VP NP PP)	*They based the findings on facts.*	19	4.02	1488	3.61
Totals			473	100	41,229	100

This total also makes PVs clause structures the group with the largest number of types as compared to the rest of the clause structures investigated (as shown in Fig. 1). Moreover, the results highlight the relevance of including phrasal prepositional types when identifying PVs; in our study PVs constitute at least one quarter of all verb types used in academic writing.

The total of PV tokens identified is 684, consisting of 321 in phrasal type 1, 252 in Phrasal Type 2, 78 in Phrasal Prepositional Type 1 and 33 in Phrasal Prepositional Types 2 and 3. The full set of PVs and their frequencies are listed in the Appendix. Compared to the token count of verbs in the other clause structures investigated, which is 41,229, PVs represent an approximate ratio of 1.66 for every 100 tokens (as shown in Fig. 2). This result was not anticipated and it clearly highlights the importance of PVs in current academic writing in Linguistics. It indicates a fairly high level of acceptance regarding the use of PVs contradicting previous research and general assumptions about PVs in academic domains. This result could be due to changes in the norms of academic practices following the colloquialisation trend. The usage identified in this study could also represent a stable pattern of academic writing, yet, this is difficult to establish because past research on academic writing practices largely overlooked PVs or did not investigate them as comprehensively as the present study does.

The phrasal verbs identified in the sample (listed in the Appendix) include many types that also occurred in the PHaVE and the S&AW PHaVE lists (Garnier & Schmitt, 2015; Liu & Myers, 2018), such as *go on, come up, find out*. In terms of frequency, the list indicates some similarities and differences in the use of PVs in academic writing as compared to general use demonstrated in the PHaVE list. The PV *go on* is the most commonly used intransitive PV identified in the AEC sample and it is also the most frequent PV in the PHaVE list. The PVs *take up, take on,* and *set up* are the most frequent transitive PVs in the AEC but they come further down in the PHaVE list: *take up* is the 41st, *take on* is the 15th, and *set up* is the 11th. This indicates that *go on* is not only common in general use, but it is also frequent in academic writing, while the use of *take up* seems to be more associated with academic writing than general use. Considering phrasal prepositional verbs, the list shows that combinations such as *come up with, move away from, made up of,* and *set sth apart from* are common in the AEC.

Table 4 presents the raw frequencies and dispersion measures for each type of PV across the 9 journals. The DP_{norm} values indicate that Phrasal Type 2 and Phrasal Prepositional Type 1, which have very low dispersion measures (0.198 and 0.133, respectively), are evenly distributed across the Linguistics journals. The largest group, Phrasal Type 1, is less well evenly

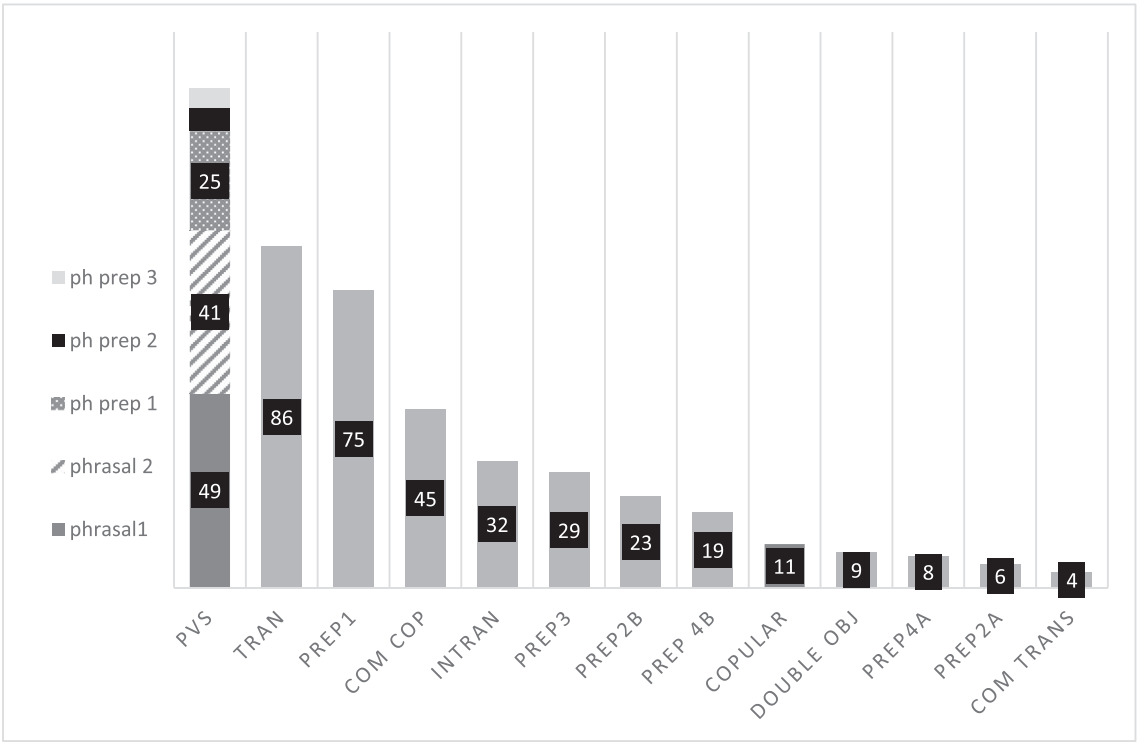


Fig. 1. Distribution of verb tokens across the clause structures in the AEC.

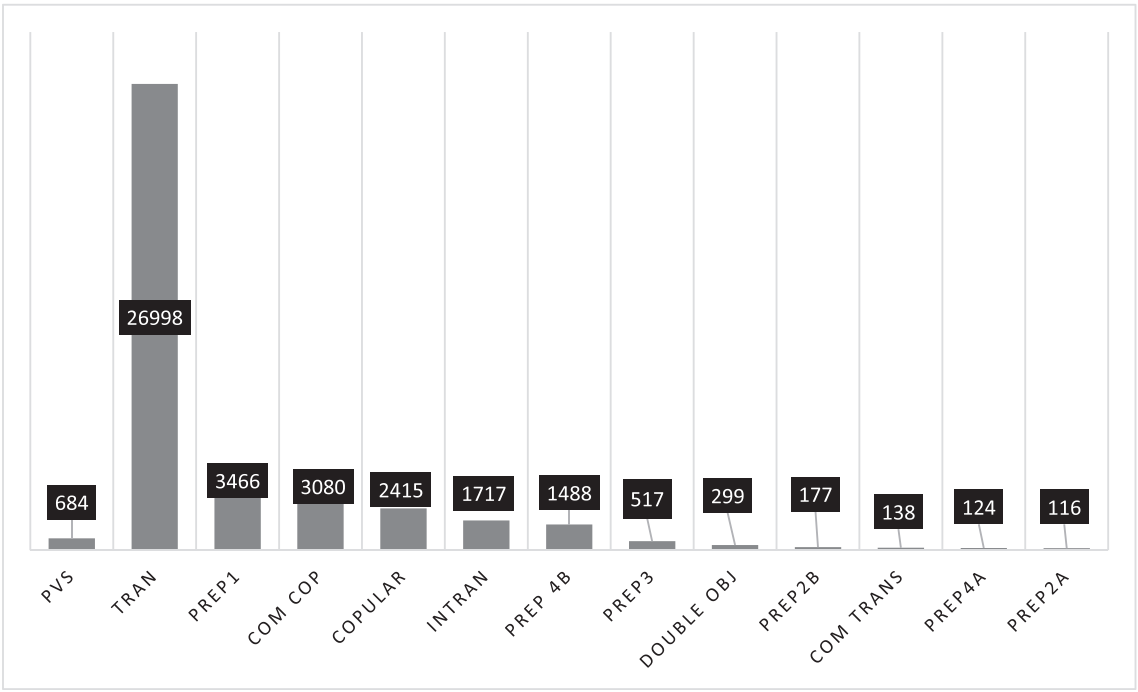


Fig. 2. Distribution of verb types across the clause structures in the AEC.

distributed, suggesting that some instances of this category occur more frequently in some journals than others, but nevertheless, the low dispersion value (0.241) indicates a relatively even distribution in the corpus. Unsurprisingly, the two PV categories with the fewest occurrences, Phrasal Prepositional Types 2 and 3, are more unevenly dispersed (0.326 and 0.543, respectively).

Table 4
Raw frequencies and DP_{norm} values for each PV type.

PV Type	Raw Freq	DP_{norm}
Phrasal Type 1	321	0.241
Phrasal Type 2	252	0.198
Phrasal-Prep Type 1	78	0.133
Phrasal-Prep Type 2	23	0.326
Phrasal-Prep Type 3	10	0.543

Although DP_{norm} values for individual verbs were found to vary considerably (from 0.146 to 1.000), the overall dispersion measure for all PVs considered together, $DP_{norm} = 0.185$, suggests that these verb types are nevertheless very evenly dispersed across the 9 journals. Therefore, these findings provide further evidence for PVs becoming an established feature of academic writing in mainstream Linguistics journals.

4.2. Semantic analysis of PVs in the AEC

In this section, the main senses and functions of the most frequent PVs in the AEC are discussed. This analysis focuses on the most frequent PV from each type. Special emphasis is placed on PVs whose senses demonstrate a considerable difference between academic and general use. These include: *go on*, *take up*, *come up with,* and *made up of*.

4.2.1. Go on (56 tokens)

This phrasal verb is commonly associated with spoken language (Liu, 2011), and thus it is surprising to see it used so frequently in the sample of published academic writing. In the AEC, *go on* is the most frequently used PV in the Phrasal Type 1 clause structure and its occurrence is evenly dispersed across the journals ($DP_{norm} = 0.146$). According to Garnier and Schmitt (2015), in general use, this PV has the following two main senses:

1. Happen, take place (64.5%)
2. Proceed to do or tackle something after doing something else (13%)

In the AEC, this PV is used in both senses. In 27 occurrences (48% of cases), it is used to refer to what is happening as shown in the concordance lines in Fig. 3. It activates the semantic frame of 'Event' which involves an event, a place and time as core elements. The event is usually expressed by the question word *what*, as in the phrase *what is going on,* the place is expressed by words like *the data, the interaction,* or physical place, such as *the classroom*. Time is usually expressed through the question word *when.*

In 29 occurrences (52% of cases), *go on* is used to mean *proceed*. It activates the semantic frame of 'process_continue'. In most examples, a speaker (e.g. *he, the interviewee*) proceeds from one event to another, as illustrated in the examples in Fig. 4. While in the PHaVE list the first sense which is 'happen' is considerably more frequent than the second sense, 'to proceed', in the AEC, the two senses seem to be used with similar frequency.

4.2.2. Take up (56 tokens)

The most frequent phrasal verb in the Phrasal Type 2 clause structure in the AEC is *take up*. This PV is commonly associated with fiction and less with academic writing (Liu, 2011) and it is relatively evenly dispersed across the AEC sub-corpora ($DP_{norm} = 0.259$). In general use (Garnier & Schmitt, 2015), the most frequent senses of *take up* are, in order of frequency:

1. Use a particular amount of space, time or effort (25.5%)
2. Discuss or deal with (issue, idea, matter) (17.5%)
3. Starting to do a particular job or activity (10.5%)
4. *Take up* also has a literal meaning of 'grasping an object, often moving it from a lower to a higher position' (10%)

The first three metaphoric senses of *take up* are found in academic writing but in a different order of frequency. A close semantic analysis of the concordance lines of *take up* in the sample of English academic writing provides insights into the

but of giving information on what was	**going on**	when something else happened. With the
define frame as 'a definition of what is	**going on**	in interaction, without which no utterance
There were a lot of creative flows	**going on**	in the classroom. We worked with different

Fig. 3. Concordance lines of 'go on' in the sense of "happen" (27 tokens).

the writer's own original material. He	**goes on**	to argue that digital media now present
standing outside. Drubig (1988: 88– 90)	**goes on**	to argue that directional (as opposed
careful consideration. This interviewee	**goes on**	to provide a personal anecdote that

Fig. 4. Concordance lines of 'go on' in the sense of 'proceed' (29 tokens).

context of multimodal practices? This article	**takes up**	these questions by examining the …
not be limited to writing or speaking). I will	**take up**	each of the strategies in turn in order to
local school dynamics. The following section	**takes up**	this argument in more detail by analyzing

Fig. 5. Concordance lines of 'take up' in the sense of 'discuss' (23 tokens).

' (Calver 1946: 323). A similar idea is	**taken up**	by Dowty (1975), who assumes that…
. Whether readers subscribe to the position	**taken up**	in Mehdi Riazi's paper or not
absolute constructions confirms the stance	**taken up**	by reference grammars for earlier period

Fig. 6. Concordance lines of 'take up' in the sense of 'adopt a position' (20 tokens).

types of noun phrases associated with this verb and its patterns of meaning. The subjects of this PV are commonly animate, inanimate or unknown when in the passive voice. Animate subjects include *writers, interviewees, subjects;* pronouns, such as *they, I* and *we;* and proper nouns. Inanimate subjects include *paper, article, chapter, section.* The object position is often filled with words pointing to the activity of discussion including: *questions, negotiations, argument,* and *challenge.* This pattern of use is detected in 23 instances (41%) out of the total 56. It can therefore be concluded that in English academic writing the PV *take up* is mostly used in the second sense of *discuss* or *deal with* and what is academically *taken up* are nouns of argument or dispute. The subject is an arguer that *takes up an argument, a question*, or *a negotiation* as indicated in Fig. 5.

In 20 instances (36% of cases), the object position of *take up* is also filled with expressions such as *the stance, the position, the idea*. In this case, the subject is either an animate or inanimate agent that adopts a 'position' (see Fig. 6).

These examples appear to constitute an additional sense of this verb not identified by Garnier and Schmitt (2015), but which is clearly distinct from the sense of 'discuss or deal with' mentioned in relation to Fig. 5.

The most frequent use of this PV in general use has the sense of 'use an amount of time or space' but this sense occurs slightly less frequently (23% of cases) in the academic sample studied here (see Fig. 7).

The semantic frame of 'arguer - take up - an argument' and new sense identified here as 'agent - take up - a position' are the most frequent semantic frames used with *take up* in this sample of expert academic writing (77% of cases). The third frame, that of 'taking up time and space', occurs slightly less frequently, while the two remaining meanings of 'starting an activity' and 'moving an object from a lower to a higher position', as identified by Garnier and Schmitt (2015), were not attested in the AEC. This suggests that PVs in academic writing are used only in restrictive senses, do not convey all the meanings that they have in general language use and even extend to at least one further sense not identified to date in the latter context.

4.2.3. Come up with (10 tokens)

In general use *come up with* is used to mean *bring forth* or *produce*. Given the smaller category size of this PV type, it is unsurprising that the dispersion of *come up with* is less even across the journals analysed ($DP_{norm} = 0.513$). It activates the semantic frame of 'coming_up_with' which involves a cognizer who conceptualizes an invention or an idea. In the AEC, *come up with* also activates the same semantic frame. In all examples of its use in the Phrasal Prepositional Type 1 clause structure,

a considerable amount of the time is	**taken up**	in translation back and forth. From the
gained in importance quite spectacularly,	**taking up**	22% of all instances of the absolute
nominal is more compressed and dense (	**taking up**	just one slot in the sentence),

Fig. 7. Concordance lines of 'take up' in the sense of 'use an amount of time or space' (13 tokens).

problem of a similar kind – linguists tend to	**come up with**	different terms for what is essentially
line with the above contentions, we have	**come up with**	the following research questions
rhetorical functions Matthiessen & Thompson	**come up with**	a new, more specialized understanding

Fig. 8. Concordance lines of 'come up with' (10 Tokens).

the verb is used in the active voice, mostly preceded by an animate cognizer, such as *we, they, you, linguist, the speakers*, except for one example where the subject is inanimate *frequency list.* The inventions that the cognizer *comes up with* include products of thinking and academic engagement such as *questions, interpretations, explanation, terms* and *understanding* (see Fig. 8). The academic use of *come up with* seems to be consistent with its use in general English.

4.2.4. Make up of (16 tokens)

The dispersion measures for the Phrasal Prepositional Type 2 verb *make up of* again indicated a relatively less even distribution across the journals, given the limited size of this PV category ($DP_{norm} = 0.408$). In all instances, *make up of* is used in the passive voice with no *by*-phrase, thus, the agent subject is unknown. In general use, *make up of* means to form the whole or an amount of an entity. It activates the semantic frame of 'Creating' which involves a creator, and a created entity as core elements. The 'Creating' semantic frame also involves the mentioning of the components of which something is created as a non-core element. In this phrasal-prepositional verb *make up of,* the creator is not mentioned because the passive voice is used, however, the created entity is mentioned as well as the components of which it is made, as in the following examples:

The phrasal prepositional verb *make up of* has the same meaning, in general and academic use. However, in academic writing it is more frequently used in the passive voice (see Fig. 9).

The analysis of types and tokens of PVs as compared with other verb categories has highlighted their relative prominence in the sample studied suggesting that expert academic writers in Linguistics are certainly not afraid of using PVs. Because the sample included published articles from prominent journals, we can assume that the use of PVs is becoming a norm of academic literacy in our discipline and we are possibly moving away from a prescriptive attitude to PVs. Yet, as the analysis of meanings of a small sample of PVs has shown, in academic writing, PVs are used in limited and rather specific senses compared to their use in general English.

5. Conclusions and pedagogical implications

This study adopted a novel approach to the investigation of PVs within the context of verb complementation clause structures. Rather than the linear lexical analysis of this type of grammatical collocation based on one simple syntactic criterion (e.g. Nesselhauf, 2003), a lexico-grammatical approach integrating the syntactic structures and semantic properties of PVs has been employed to offer more systematic and comprehensive insights into the use of PVs in academic writing by expert writers in the discipline of Linguistics.

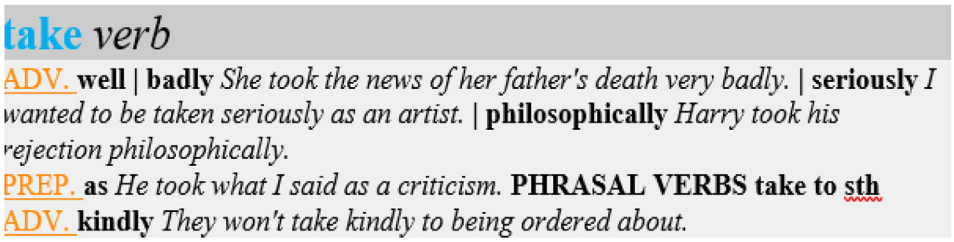
The results show that PVs constitute a substantial proportion of verb categories in current academic writing produced by expert writers in the discipline of Linguistics (nearly 27% of all clause structures for the 100 most frequent verbs). Using an extended syntactic framework based on the Quirkian clause structures, we were able to show that phrasal prepositional verbs constitute an important proportion of PVs used in academic writing (more than 28% of the PVs identified) and that they are generally relatively evenly dispersed across mainstream academic journals of Linguistics. This emphasises the importance of expanding the analytical approach to PVs beyond two-word items.

The frequent use of PVs in academic writing in Linguistics runs counter to previous research findings on their use in formal registers which shows that PVs are uncommon (Biber et al., 1999; Liu, 2011). This result could be an effect of a less prescriptive approach to academic writing emerging in our discipline and possibly due to the general trend of colloquialisation (Leech et al., 2009). The analysis of the prevalent meanings of a selection of PVs supports the findings of Liu and Myers (2018): when used in academic writing, PVs have different senses from those used in spoken or more general language, many of which are the less frequent ones.

An important implication of our study is that novice writers in our discipline should not be afraid of using PVs in their own academic writing and could benefit from knowing that a range of PVs are acceptable. In the AEC, many phrasal verbs have high frequencies such as *go on* (56), *take up* (56), and *take on* (32). Some of these verbs have specific academic uses that are different from general uses and the current research revealed an additional sense of *take up* not previously documented in the

The extracts were all	**made** up of	complete sentences. The fifty-four
The BNC is	**made** up of	10 per cent spoken and 90 per cent

Fig. 9. Concordance lines of 'make up of' (16 Tokens).


take *verb*

ADV. **well** | **badly** *She took the news of her father's death very badly.* | **seriously** *I wanted to be taken seriously as an artist.* | **philosophically** *Harry took his rejection philosophically.*

PREP. **as** *He took what I said as a criticism.* **PHRASAL VERBS take to sth**

ADV. **kindly** *They won't take kindly to being ordered about.*

Fig. 10. Entry for the verb 'take' in the Oxford Collocations Dictionary.

PV studies reviewed here. Therefore, it would be very useful to expose learners to these phrasal verbs within the academic context so that they can use them appropriately in their own writing.

Our study has shown that phrasal prepositional verbs constitute a substantial proportion of the PVs identified in the sample. Interestingly, in most cases, they are used metaphorically to indicate movement of ideas and thoughts in the 'space' of the article or are employed meta-discursively to structure texts. Examples include verbs such as: *move away from, come back to,* and *turn away from.* Novice writers could benefit from being introduced to phrasal prepositional verbs; it could help them understand academic writing as a space in which ideas, concepts and beliefs are being developed, moved and shifted. All in all, we would like to encourage EAP practitioners and EAP curriculum developers to consider PVs. Yet, any instruction or teaching guidelines on PVs in academic writing would need to emphasise the differences in the ways in which PVs are used in academic writing as compared to general English.

Dictionaries, specifically online dictionaries, such as the Oxford English Dictionary and the Cambridge Dictionary, as well as corpus-based dictionaries of collocations, such as the Oxford Collocations Dictionary for students of English, are free and useful resources for learners around the world (Nesi, 2012). Yet, when it comes to developing academic writing, these

***take* (verb)**

1. Transitive with a following noun phrase.
   Section 4 ***takes*** *a more qualitative approach.*
2. Phrasal Type 2
   a. *take up* (start to do a particular activity)
      Pre-modifying participles ***take up*** *various roles.*
   b. *take on* (accept a role/ an attribute)
      Compounding may ***take on*** *a number of forms.*
   c. *take over* (gain control)
      This single morph ***takes over*** *the role of the combination.*
3. Complex Copular
   We ***take*** *these findings to be indicative.*
   These debates are ***taken as*** *a social practice.*
4. Prepositional Type 3
   a. *take into account/ take account of/ take into consideration*
      She did not ***take into account*** *the above distinction.*
      The toolkit ***takes account of*** *the poem's context.*
      In my analysis, I ***take into consideration*** *the different definitions.*
   b. *take part in*
      This encourages the participants to ***take part in*** *the discussion.*
   c. *take advantage of*
      Writers have the opportunity to ***take advantage of*** *the available time.*
   d. *take responsibility for*
      The government cannot ***take responsibility for*** *solving the crisis.*
5. Phrasal Prepositional Type 2 and 3
   This discussion ***takes us away from*** *the main issue.*
   Decontextualizing means ***taking something out of*** *its original context.*

Fig. 11. An example of an expanded dictionary entry of 'take' based on the present analysis.

dictionaries are limited. For example, if a novice writer were to look up one of the lexical verbs that are commonly involved in PVs, such as *set, make* or *take,* in the Oxford Collocations Dictionary for students of English, he or she will find that the verbs *set* and *make* are not listed at all. *Set* is only represented as a noun and as an adjective, the form *setback* is included but only as a noun and there is no entry for the verb *make,* only an entry for *makeup* as a noun. The entry for the verb *take* includes little information about its adverbial collocations (only *well* and *badly* are considered) and some limited examples of its use with prepositions or as a phrasal verb which do not reflect the variety of multi-word combinations and senses in which the verb *take* is involved (see Fig. 10).

Therefore, it is vital for linguists and language teachers to discuss these dictionaries, criticise them and aim to improve them (Nesi, 2012). Although dictionaries of English for academic purposes exist, such as, for example, the Oxford Learner's Dictionary of Academic English (2014), entries for verbs do not always include the full syntactic and semantic information in relation to their use in multi-word verb clause structures in academic writing. For example, while the entry for *take* in the above dictionary includes phrasal verbs, phrasal prepositional types are not listed. Moving away from lists presenting verbs plus one preposition and including information on how a verb is used across the different clause structures in which it occurs could assist EAP teachers, students and novice writers in tackling better the challenges of academic writing. Based on the results of this study, an improved entry for the verb *take* as used in academic writing may look as shown in Fig. 11.

This study is limited to the investigation of the top 100 most frequent verbs in the discipline of Linguistics. Future research could extend the scope by including more verbs and cover different disciplines to perform a comparison across disciplines and subject areas to explore the extent to which PVs are becoming accepted more widely in academic writing. Further research could also explore novice writers' use of PVs and identify areas that need further instruction and support.

Appendix. Phrasal verbs in the AEC and their frequencies

Clause Type	Examples							
Phrasal Type 1	go on	56	go up	6	set off	3	come through	1
	come in	26	go down	5	turn out	3	come down	1
	move on	25	get up	5	move back	3	refer backwards	1
	come out	19	turn up	5	speak out	2	go further	1
	come about	18	begin with	5	speak back	2	go forth	1
	go back	16	show up	4	speak up	2	go over	1
	come across	15	take over	4	come up	2	go along	1
	set out	13	go through	4	go off	2	go around	1
	come together	9	go away	4	go forward	2	go about	1
	play out	9	take off	3	get on	2	get along	1
	go out	8	come back	3	get by	2		
	get back	7	come on	3	set up	2		
	move forward	7	go by	3	move around	2		
Phrasal Type 2	take up	56	get in	3	take forward	2	set forth	1
	take on	32	get out	3	take in	2	take aback	1
	set up	31	turn off	3	turn back	2	think over	1
	make up	21	turn up	3	call out	1	turn down	1
	find out	17	draw up	2	get across	1	turn on	1
	set out	13	move away	2	get through	1	turn round	1
	work out	12	set apart	2	give away	1	write down	1
	take over	9	set aside	2	give in	1	write out	1
	start off	5	set off	2	give up	1		
	follow up	4	show off	2	lead on	1		
	start out	4	take away	2	mark out	1		
phrasal Prepositional Type 1	come up with	10	develop out of	3	start out with	3	get up to	1
	move away from	7	get on with	3	write back to	3	go up to	1
	come back to	5	go out of	3	come out with	2	move along with	1
	go along with	5	lead up to	3	come up against	2	begin out of	1
	follow up on	4	look back at	3	get down with	2		
	look forward to	4	look up at	3	get away with	1		
	refer back to	4	start off with	3	get out of	1		
Phrasal Prepositional Type 2	made up of	16	follow sth up with	2	set sth apart from the views	1	take sth out of its context	1
	turn sth away from	2	lead sth away from	1				
Phrasal Prepositional Type 3	set sb/sth apart from	4	take sb out of	2	take sb away from	1	give oneself up to	1
	get sth/sb back on	2						

References

Aldukhayel, D. (2014). *The L2 exposure effect on avoidance of phrasal verbs by Arab ESL learners* (MA thesis). Retrieved from ProQuest LLC.
Bailey, S. (2003). *Academic writing: A practical guide for students*. London, New York: Routledge.

Biber, D., Egbert, J., Gray, B., Oppliger, R., & Szmrecsanyi, B. (2016). Variationist versus text-linguistic approaches to grammatical change in English: Nominal modifiers of head nouns. In M. Kytö, & P. Pahta (Eds.), *The Cambridge handbook of English historical linguistics* (pp. 351–375). Cambridge: Cambridge University Press.
Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow: Longman.
Breeze, R. (2012). Verb-particle constructions in the language of business and finance. *Language Value, 4*(1), 84–96.
Cambridge dictionary. Cambridge: Cambridge University Press. https://dictionary.cambridge.org/
Coxhead, A., & Byrd, P. (2007). Preparing writing teachers to teach the vocabulary and grammar of academic prose. *Journal of Second Language Writing, 16*(3), 129–147.
Dagut, M., & Laufer, B. (1985). Avoidance of phrasal verbs – a case for contrastive analysis. *Studies in Second Language Acquisition, 7*(1), 73–79.
Fillmore, C. (1982). *Frame semantics*. Seoul: Hanshin Publishing Company.
Fillmore, C. J., & Baker, C. (2010). A frames approach to semantic analysis. In B. Heine, & H. Narrog (Eds.), *The Oxford handbook of linguistic analysis* (pp. 313–340). Oxford: Oxford University Press.
Gardner, D., & Davies, M. (2007). Pointing out frequent phrasal verbs: A corpus-based analysis. *Tesol Quarterly, 41*(2), 339–359.
Garnier, M., & Schmitt, N. (2015). The PHaVE list: A pedagogical list of phrasal verbs and their most frequent meaning senses. *Language Teaching Research, 19*(6), 645–666.
Greenbaum, S., & Nelson, G. (2002). *An introduction to English grammar* (4 ed.). New York: Routledge.
Gries, S. T. (2008). Dispersions and adjusted frequencies in corpora. *International Journal of Corpus Linguistics, 13*(4), 403–437.
Gries, S. T., & Berez, A. L. (2017). Linguistic annotation in/for corpus linguistics. In N. Ide, & J. Pustejovsky (Eds.), *Handbook of linguistic annotation* (pp. 379–409). Dordrecht: Springer.
Hundt, M., & Mair, C. (1999). Agile" and" Uptight" genres: The corpus-based approach to language change in progress. *International Journal of Corpus Linguistics, 4*(2), 221–242.
Kilgarriff, A., Baisa, V., Bušta, J., Jakubíček, M., Kovář, V., Michelfeit, J., … Suchomel, V. (2014). The Sketch engine: Ten years on. *Lexicography, 1*(1), 7–36.
Leech, G., Hundt, M., Mair, C., & Smith, N. (2009). *Change in contemporary English: A grammatical study*. Cambridge: Cambridge University Press.
Liao, Y., & Fukuya, Y. (2004). Avoidance of phrasal verbs: The case of Chinese learners of English. *Language Learning, 54*(2), 193–226.
Lijffijt, J., & Gries, S. T. (2012). Correction to Stephan Th. Gries' "Dispersions and adjusted frequencies in corpora. *International Journal of Corpus Linguistics, 17*(1), 147–149.
Liu, D. (2011). The most frequently used English phrasal verbs in American and British English: A multicorpus examination. *Tesol Quarterly, 45*(4), 661–688.
Liu, D. (2012). The most frequently-used multi-word constructions in academic written English: A multi-corpus study. *English for Specific Purposes, 31*(1), 25–35.
Liu, D., & Myers, D. (2018). The most-common phrasal verbs with their key meanings for spoken and academic written English: A corpus analysis. *Language Teaching Research*, 1–22.
Merriam-Webster. Merriam-webster. incorporated https://www.merriam-webster.com/.
Nesi, H. (2012). Alternative e-dictionaries: Uncovering dark practices. In S. Granger, & M. Paquot (Eds.), *Electronic lexicography* (pp. 363–378). Oxford: Oxford University Press.
Nesselhauf, N. (2003). The use of collocations by advanced learners of English and some implications for teaching. *Applied Linguistics, 24*(2), 223–242.
Oxford collocations dictionary for students of English.Oxford. Oxford: Oxford University Press. http://www.freecollocation.com/search?word=take
Oxford English dictionary. Oxford: Oxford University Press. https://www.oed.com/
Oxford learner's dictionary of academic English. Oxford: Oxford University Press. https://www.oxfordlearnersdictionaries.com/
Paquot, M., & Granger, S. (2012). Formulaic language in learner corpora. *Annual Review of Applied Linguistics, 32*, 130–149.
Quirk, R., Greenbaum, S., & Leech, G. (1985). *A comprehensive grammar of the English language*. London: Longman.
Schmitt, N., & Redwood, S. (2011). Learner knowledge of phrasal verbs: A corpus-informed study. In F. Meunier, S. De Cock, G. Gilquin, & M. Paquot (Eds.), *A taste for corpora. A tribute to Professor Sylviane Granger* (pp. 173–208). Amsterdam: Benjamins.
Siyanova, A., & Schmitt, N. (2007). Native and nonnative use of multi-word vs. one-word verbs. *IRAL - International Review of Applied Linguistics in Language Teaching, 45*(2), 119–139.
Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills* (Vol. 1). Ann Arbor, MI: University of Michigan Press.
Trebits, A. (2009). The most frequent phrasal verbs in English language EU documents – a corpus-based analysis and its implications. *System, 37*(3), 470–481.

Dr Manal Alangari is a Lecturer of English Language at Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia. She has recently completed a PhD in Applied Linguistics at the Department of English Language and Applied Linguistics at the University of Reading. Her main areas of research interest are corpus linguistics, language teaching and learning, and contrastive linguistics.

Dr Sylvia Jaworska is an Associate Professor of Applied Linguistics at the Department of English Language and Applied Linguistics at the University of Reading. Her main research interests are in professional communication in media, business, health and academic settings. She published widely on topics in these areas in *Applied Linguistics*, *Language in Society*, *Social Science and Medicine*, *Discourse and Society*, *Language Teaching* and many others. She is a co-author of *Language and Media* (2019, Routledge).

Dr Jackie Laws is Associate Professor of Linguistics in the Department of English Language and Applied Linguistics at the University of Reading. Her research interests relate to all aspects of grammar, child language acquisition, cognitive linguistics, corpus linguistics and motion event cognition. Her research has focused on English, Italian and Mandarin. One of her current projects on English derivational morphology evaluates the distributional properties of complex words in adult spoken language as a function of register.